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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/711,507 | 09/23/2004 | Chia-Ling Huang | MTKP0078USA | 5506 |
| 27765 | 7590 | 12/18/2006 | EXAMINER | |
| NORTH AMERICA INTELLECTUAL PROPERTY CORPORATION P.O. BOX 506 MERRIFIELD, VA 22116 | | | TRAN, THANG V | |
| | | | ART UNIT | PAPER NUMBER |
| | | | 2627 | |

DATE MAILED: 12/18/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/711,507

Applicant(s)

HUANG, CHIA-LING

Examiner

Thang V. Tran

Art Unit

2627

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 7-12 is/are allowed.
- 6) ☐ Claim(s) 1-4,6 and 13-16 is/are rejected.
- 7) ☒ Claim(s) 5 is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 September 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. ____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date ____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. ____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: ____.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 1-3, 6, 13-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Komazaki (US 6,804,176).

Regarding claim 1, see Figs. 1-5 of Komazaki which disclose a method for controlling a stepping motor (14) in an optical storage system (see Fig. 1), which comprises a pick-up head (3) for achieving a short seek, the method comprising: calculating a number of steps that the stepping motor should rotate (see Figs. 2, 4A and 4B); and the pick-up head (14) is moved toward a target position by having the stepping motor (14) rotate according to the number of steps (see column 9, lines 11-25).

Regarding claim 2, see Fig. 1 which shows the pick-up head (3) is placed on a sled, the sled being electrically connected to the stepping motor (14), and the method further comprises: utilizing the stepping motor (14) for driving the sled to move the pick-up head (3) toward the target position.

Regarding claim 3, see Fig. 1 which shows the optical storage system further comprises an object lens (4) placed movably on the pick-up head (3), and the method further comprises moving the object lens toward a target track (by servo processor 9).

Regarding claim 6, see Fig. 1 that shows the optical storage system further comprises a control module (see servo processor 9) for controlling operations of the stepping motor, the pick-up head, and the object lens.

Regarding claim 13, see Fig. 1 which discloses an optical storage system comprising: a sled (see Fig. 1) placed movably in the optical storage system; a pick-up head (3) placed on the sled; an object lens (4) placed movably on the pick-up head; a stepping motor (14) electrically connected to the sled for driving the sled to move the pick-up head (3) and stopping the sled and the pick-up head when a shift distance is lower than a predetermined range (see column 3, lines 12-17 or column 8, lines 7-14), and a control module (9) electrically connected to the stepping motor, the pick-up head, and the object lens for controlling operations of the stepping motor, the pick-up head, and the object lens.

Regarding claim 14, see Fig. 1 that shows the sled and the object lens move along a radial direction.

Regarding claim 15, see Fig. 1 that shows the shift distance is a distance between the object lens and a center of the pick-up head (see column 3, lines 12-17 or column 8, lines 7-14).

Regarding claim 16, see Fig. 1 which discloses the stepping motor is implemented for a short seek (see column 9, lines 26-30).

3. Claims 1-4 and 6 are rejected under 35 U.S.C. 102(e) as being anticipated by Kobayashi et al (Pub No US2005/0041542).

Regarding claim 1, see Figs. 1-3 of Kobayashi et al which disclose a method for controlling a stepping motor (106) in an optical storage system (see Fig. 1), which comprises a

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pick-up head (103-104) for achieving a short seek, the method comprising: calculating a number of steps that the stepping motor should rotate (see step S11 in Fig. 3); and the pick-up head is moved toward a target position by having the stepping motor (106) rotate according to the number of steps (Fig. 3).

Regarding claim 2, see Fig. 1 which shows the pick-up head is placed on a sled (105), the sled being electrically connected to the stepping motor (106), and the method further comprises: utilizing the stepping motor (106) for driving the sled to move the pick-up head (103, 104) toward the target position.

Regarding claim 3, see Fig. 1 which shows the optical storage system further comprises an object lens (103) placed movably on the pick-up head, and the method further comprises moving the object lens toward a target track (by circuit 114).

Regarding claim 4, see the operation of means 110 in Fig. 1 or step S11 in Fig. 3 for limitations in this claim.

Regarding claim 6, see Fig. 1 that shows the optical storage system further comprises a control module (circuits 109-114 are interpreted as control module) for controlling operations of the stepping motor, the pick-up head, and the object lens:

Allowable Subject Matter

4. Claims 5 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
5. Claims 7-12 are allowable over the prior art of record.

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6. Claims 5 and 7-12 are allowable over the prior art of record because the prior art of record, considered alone or in combination, fails to suggest or fairly teach a method for controlling a stepping motor including steps of: stopping utilizing the stepping motor to move the pick-up head if the shift distance is lower than a predetermined shift range, while the object lens has not reached the target track, and the stepping motor has not rotated according to the number of steps; and utilizing the stepping motor to move the pick-up head if the shift distance is greater than the predetermined shift range, while the object lens has not reached the target track, and the stepping motor has not rotated according to the number of steps, as recited in claim 5, or a method of achieving a short seek in an optical storage system that has a stepping motor, a pick-up head, and an object lens, including a combination of following steps: (a) calculating a number of steps that the stepping motor should rotate; (b) after step (a), utilizing the stepping motor to move the pick-up head toward a target position and move the object lens toward a target track at the same time; (c) determining if the object lens has reached the target track, wherein the short seek is finished if the object lens has reached the target track; otherwise, step (d) is performed; and (d) continuing to move the object lens until the pick-up head has reached the target position and then returning to step (c); otherwise, repeating step (d), as recited in claim 7. Claims 8-12 are allowable with their respective parent claim.

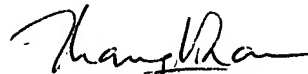
Cited References

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The cited references relate to an optical apparatus having a motor for moving a sled to move an optical head provided thereon to perform a track seeking on an optical disk.

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thang V. Tran whose telephone number is (571) 272-7595. The examiner can normally be reached on M-F 9:30AM-6:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nguyen Hoa can be reached on (571) 272-7579. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Thang W. Tran
Primary Examiner
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